

Expectant mothers participate in lactation project: WSU researchers will compare effects of formula, breastfeeding

By Katie Roenigk Daily News Staff Writer

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Among the myriad decisions expectant mothers have to make, one has to do with the way they will feed their newborn infant. Many women wonder whether it would be best to use formula, and if so, what brand? Or are there more benefits to breast feeding?

Those are the questions researchers are attempting to answer through the Washington State University Lactation Nutrition Project. For the past six months, WSU graduate student Mara Riley has worked with researchers Shelley and Mark McGuire to determine the effects of breastfeeding compared to a formula diet.

The research is unique according to Riley, who said a study of this kind has not been attempted in the past.

"(Feeding techniques) have been looked at before, just never at this angle," Riley said last week. "I'm looking just at what the (infant's) gut is retaining, what bacteria might be passing through and where that comes from."

She collects samples of breast milk, saliva, fecal matter and skin from mothers and infants beginning on the second day of a baby's life, returning on day five, day 10, and then once each month until the child is six months old.

On Monday, Riley met for the fourth time with Tyson Samuel Camp, son of Stacey Camp of Moscow.

"He's my little boy," Camp said when she brought Tyson in for testing this week. "He's a big boy though."

Twenty days ago, Tyson weighed 9.57 pounds. Now, at 1-month old, he has reached 11.84 pounds.

"But he feels so much heavier," Camp said, cradling her son while opening her mouth for a saliva swab.

When Camp found out about Riley's study, she said she wanted to participate in order to help mothers who may experience the same problems she had: Two years ago, Camp developed mastitis while breast feeding her first child, Lana.

At that time, Camp said, there was very little information available about her options.

"The doctors were clueless," she said. "Hopefully that won't be the case in the future." Implications

Money is a bonus for a lot of the moms, who are paid for their time, but Riley said most of the women, like Camp, also are motivated by the educational opportunities behind the research. Until recently, scientists believed that breast milk was sterile. But about 10 years ago researchers discovered that might not be the case and "opened up the floodgate" of study into the effects of breast feeding on babies' development.

In the future, Riley would like to use the results of the lactation nutrition study to help develop healthier foods for babies eating formula.

"Is there a new bacterium we should be putting in formula that would prevent some kind of illness?" she asked.

If beneficial bacteria can be isolated, Shelley said that knowledge also could be used to help children in countries with high infant mortality rates.

"If we find out what the good bacteria are ... we can manipulate women's milk in natural ways so it is as protective as possible," Shelley said. "We're trying to understand normal, healthy physiology so we can intervene when things are not going well."

Their research is funded in part through the Bill & Melinda Gates Foundation Grand Challenges in Global Health initiative and through the Initiative for Bioinformatics and Evolutionary Studies (IBEST). Mothers interested in taking part can call Riley at (210) 710-8999 or email maria.riley@wsu.edu.

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